

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested. Claims 1-18 are pending, Claims 1-8 having previously been withdrawn from consideration, Claim 9 having been amended, and Claims 11-18 having been added by way of the present amendment. Support for amended Claim 9 is found at page 7, line 11. Support for Claims 11 and 12 is found at page 12, lines 1-7. Support for Claim 13 is found at page 16, lines 4-8. Support for Claim 14 is found at page 7, lines 11-14. Support for Claim 15 is found at page 8, lines 6-13. Support for Claim 16 is found at page 10, lines 21-24. Support for Claim 17 is found in original Claim 3 and support for Claim 18 is found at original Claim 8. Accordingly, no new matter is added.

In the outstanding Office Action, the restriction of Claims 1-8 was made final; Claims 9 and 10 were rejected under 35 U.S.C. § 112, second paragraph; and Claims 9 and 10 were rejected as being anticipated by, or in the alternative, rendered obvious over Yagi et al. (U.S. Patent No. 6,698,249) or Fritsche et al. (U.S. Patent No. 6,321,373).

Claim 9 has been amended to comply with 35 U.S.C. § 112, second paragraph. However, if the Examiner disagrees, the Examiner is invited to telephone the undersigned so that mutually agreeable claim language may be identified.

Claim 9 has been amended to require a step of executing a vapor-phase axial deposition process in a reactor, wherein a core partition is provided in a periphery of the core burner, and a bottom of a core partition contacts a bottom surface of the reactor. As will be discussed below, it is believed that Claim 9 as amended clearly distinguishes over Yagi and Fritsche.

As described in the present specification, one aspect of the present invention is that it allows the structure to rectify a turbulence of airflow in the reactor. The turbulence of the airflow in the reactor is caused as follows: an ascending gas flow generating from the core

flame and the clad flame, is pushed down by a descending gas flow. Thus, a turbulent descending air flow is caused. The turbulent descending air flow falls on the bottom surface and the side surface of the reactor, so as to generate an ascending air flow, thereby causing the turbulence of the air flow in the reactor. Furthermore, in order to prevent the above-mentioned turbulence of the air flow in a reactor, the present inventors found that it was effective to provide a core partition of the periphery of the core burner.

However, if the core partition does not contact the bottom surface of the reactor, it cannot prevent the ascending airflow from being generated by the falling of turbulent descending airflow on the bottom surface of the reactor. Therefore, as recognized by the present inventors contacting the partition to the bottom surface of the reactor is required, and is presently claimed in independent Claim 9.

Yagi is directed to suppressing a descending airflow *per se*. In Yagi, the device is provided with a preform passage hole 8a between a partition board 8 in a soot preform. Furthermore, Yagi describes that 8a should be more than 10 mm, in order to prevent the board 8 from contacting the soot preform. Accordingly, partition board 8 in Yagi cannot rectify the turbulence of the airflow in the reactor since the descending airflow cannot completely disappear.

In addition, it is apparent from the structure and method in Yagi, that in forming the soot according to a VAD method, it is perceived that it is quite difficult to completely eliminate the descending airflow. As Yagi does not teach or suggest the feature of a core partition provided on a periphery of the core burner, and a bottom of the core partition contacting a bottom surface of the reactor, it is respectfully submitted that Yagi neither teaches nor suggests the invention defined by amended Claim 9.

Fritsche relates to an OVD apparatus. As is apparent from Figures 1, 6 and 7, shields 41, 63 and 73 shown in Fritsche do not contact the bottom surface of the reactor. There is no

description about the airflow in the reactor of Fritsche. Based on the description above, it is believed that shields 41, 63 and 73 would not rectify the turbulence of the airflow in the reactor generated by the descending airflow because shields 41, 63 and 73 do not contact the bottom surface of the reactor. Furthermore, it is apparent that shields 41, 63 and 73 cannot suppress the generation of descending airflow.

Accordingly, as Fritsche does not disclose all of the elements of Claim 9, and generally fails to teach or suggest a method of executing a vapor-phase axial deposition process, where a bottom of the core partition contacts a bottom of the surface of the reactor, it is respectfully submitted that Fritsche neither teaches nor suggests the invention defined by amended Claim 9.

As each of Claims 10-18 depend from amended Claim 9, it is respectfully submitted that Claims 10-18 also patentably define over Yagi and Fritsche.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 9-18, as amended, is definite and patentably distinguishing over the prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

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